

OPTICAL ROUTING USING STAR SWITCHING FABRIC  
WITH REDUCED EFFECTIVE SWITCHING TIME

ABSTRACT

5           In one embodiment, a router includes a star  
switching fabric operable to receive a plurality of  
optical signals each having a wavelength and each  
associated with a payload received by the router and to  
communicate from the switching fabric a plurality of  
10 substantially similar sets of the optical signals. The  
router further includes a plurality of tunable filters  
each having a configuration speed and each associated  
with a communication path coupled to one of a plurality  
of destination elements. Each filter is operable to  
15 receive one of the sets of optical signals from the  
switching fabric and to selectively tune to a wavelength  
of one of the plurality of optical signals received to  
facilitate communication of at least the payload  
associated with that optical signal toward the  
20 destination element associated with that filter. The  
router also includes a plurality of line cards operable  
to facilitate generation of at least some of the optical  
signals for transmission to the star switching fabric.  
At least one of the plurality of line cards includes a  
25 switching enhancer operable to increase the switching  
speed of the router without modifying the configuration  
speed of any of the tunable filters.